

What is claimed:

1. A separator for a lead storage battery having a positive electrode with lateral edge portions comprising:

    a strip of material forming a base sheet;

    a plurality of main ribs arranged at regular intervals on the base sheet and adapted to space the base sheet from the positive electrode;

    a plurality of reinforcing ribs arranged on the base sheet close together and lower in height than the main ribs, and located in the region which covers the lateral electrode edge portions; and

    an additional rib arranged on the base sheet at each lateral edge portion of the separator substantially parallel to the main ribs in the region of the reinforcing ribs, which ribs are of substantially the same height as the main ribs and bear against the lateral edge portions of the positive electrode.

2. The separator as claimed in Claim 1, wherein the additional ribs in both lateral edge portions are arranged symmetrically with respect to the main ribs.

3. The separator as claimed in Claim 1, wherein all of the ribs are integral with the base sheet.

4. The separator as claimed in Claim 1, wherein the positive electrode comprises an expanded metal grid and the lateral edge portions have open cut edges.

5. The separator as claimed in Claim 1, wherein the base sheet has a thickness of approximately 0.15 - 0.25 mm.

6. The separator as claimed in Claim 1, wherein the main ribs and the additional ribs have a height of approximately 0.45 - 1.75 mm.

7. The separator as claimed in Claim 1, wherein the reinforcing ribs have a height of approximately 0.1 - 0.2 mm.

8. A lead storage battery comprising:  
a container;  
a positive electrode positioned in the container and having lateral edge portions;  
a negative electrode positioned in the container;  
an electrolyte positioned in the container; and  
a separator positioned between the positive and negative electrodes, the separator comprising: 1) a strip of material forming a base sheet, 2) a plurality of main ribs arranged on the base sheet, the main ribs being spaced apart at substantially regular intervals and being substantially parallel to one another, 3) a plurality of reinforcing ribs arranged on the base sheet in the area of the lateral edge portions, the reinforcing ribs having a lower height than the main ribs and being substantially parallel to one another, and 4) an additional rib arranged on the base sheet and in contact with each lateral edge portion, the additional ribs having substantially the same height as the main ribs and being substantially parallel to the main ribs.

9. The battery as claimed in Claim 8, wherein the additional ribs in both lateral edge portions are arranged symmetrically with respect to the main ribs.

10. The battery as claimed in Claim 8, wherein all of the ribs are integral with the base sheet.

11. The battery as claimed in Claim 8, wherein the positive electrode comprises an expanded metal grid and the lateral edge portions have open cut edges.

12. The battery as claimed in Claim 8, wherein the base sheet has a thickness of approximately 0.15 - 0.25 mm.

13. The battery as claimed in Claim 8, wherein the main ribs and the additional ribs have a height of approximately 0.45 - 1.75 mm.

14. The battery as claimed in Claim 8, wherein the reinforcing ribs have a height of approximately 0.1 - 0.2 mm.